

PERCEIVED LIMITATIONS OF e-LEARNING PLATFORMS

FITZGERALD C. KINTANAR, SUZETTE T. ELLADORA, VIVIANA C. GENABE,
TERESITA CLEOPOLDA B. SARILE, & ZYKE LORENCE L. RENDON

Cebu Technological University–Argao, Cebu Philippines

ABSTRACT

Electronic learning is a type of technology-based education that is critical to modern education and training since it enables remote learning and paves the way for the construction of numerous Learning Management System and Assessment Management System e-learning platforms.

The descriptive survey method was used to collect and analyze the data in this study. This technique described the perceived constraints of e-learning platforms in a new regular academic setting among university students at Cebu Technological University - Argao Campus, Cebu Philippines during the first semester of the Academic Year 2020-2021. The researchers used a customized questionnaire to collect data and information in order to compile e-learning platforms exposing their shortcomings.

According to the data, Odilo had the most constraints among the selected e-learning platforms for LMS, while Kahoot had the most for assessment management system. Problems accessing the e-learning platform at any time and from any location via electronic devices, particularly when having a poor internet connection, as well as difficulty attaching files and unfamiliarity with it, are the most frequently determined constraints.

KEYWORDS: *E-Learning, Perceived Limitations, Odilo, Edmodo, Google Classroom, Quizziz, Kahoot, Google Form, Learning Management System & Assessment Management System*

Received: Jul 22, 2021; **Accepted:** Sep 12, 2021; **Published:** Sep 28, 2021; **Paper Id.:** IJESRDEC20218

1. INTRODUCTION

To assure the quality of education, each educational institution makes every effort to give the goods to its students. Adaptation to numerous technology breakthroughs paved the ground for this to become a reality. According to a 2016 survey done by University Utara Malaysia, educational reforms in response to technological advancements are viewed as a critical component in preparing world citizens for the twenty-first century. The need arises as a result of the increasing expectation that students do more than memorize and absorb facts; they must be trained on how to apply and develop knowledge from current information (McClain & Brown, 2013).

The traditional educational system has evolved through time, and the necessity to transition from classroom to mixed and/or online learning is a prerequisite. Primary and secondary education, as well as institutes of higher learning (IHLs), have all undergone a paradigm shift in their teaching approaches and student learning. To adapt to changing educational trends, educational institutions must always seek innovative ways to improve the learning environment for lecturers and students (Prinsloo & van Rooyen, 2007).

COVID-19's spread has posed new obstacles for educational institutions worldwide. This put institutions' preparation to deal with a crisis to the test, as efficient online learning required advanced technology, including

hardware and software. This closure hastened the development of online learning environments in order to ensure that learning is not disrupted. Numerous universities have developed an interest in the most effective methods for delivering course content online, engaging learners, and conducting evaluations. Thus, while COVID-19 is a danger to humanity, it has compelled education to innovate and invest in online learning.

With the global pandemic still ongoing and a school year that is already behind schedule, students and learners in the Philippines have been compelled to embrace online learning. According to Dela Pena-(2009) Bandalaria's study, the word "e-learning" is used synonymously with "online learning" in the Philippines and refers to the online delivery of instructional content and accompanying support services to students. In the country, e-learning is used to supplement face-to-face (FTF) sessions in a university learning center with a more extensive use of a learning management system (LMS) as a venue for academic discussions and learning assessments; sharing of learning resources and content; and student submissions of course requirements.

Each e-learning platform has its own set of features that are specifically designed to aid in the delivery of high-quality education. Without a question, technologies and social media serve as a conduit for teachers and students to communicate. Additionally, without faculty and instructor support and effort, the objective of these platforms will be meaningless. Each educational institution and university conducted surveys to select the best e-learning platform to meet the students' needs. The majority of them spend significant sums in acquiring specialized e-learning systems designed exclusively for the university's faculty and students.

However, these technological breakthroughs are not without their drawbacks. These constraints have a significant impact on students' acquisition of knowledge and learning. This is one of the reasons why each university should continue to conduct pertinent action research investigations. With an understanding of its limitations, administration and teachers will gain in-depth information that will be beneficial and supportive of academic goals.

This study was founded on both online education learning theories and information systems (IS) theory. The Community of Inquiry Theory (COI) by Garrison and Akyol (2013), Connectivism Theory by Dunaway 2011 as mentioned by Bell (2011), and Online Collaborative Learning Theory (OCL) by Harasim et al. (2012) were among the learning theories for online education. On the other hand, a modified version of DeLone and McLean's (2003) Model of Information Systems Success was also used to navigate the research's intended objectives. Numerous researchers have attempted to extend or respecify the original model in response to DeLone and McLean's need for further development and validation. Delone and McLean proposed an updated IS success model ten years after the release of their first model, based on the evaluations of the numerous contributors (Delone & McLean, 2003). In such a case, the researchers will also base their findings on this updated model.

The combination of these diverse learning theories for online education and the information success (IS) model of IS theory bolstered the researcher's data and information regarding how e-learning platforms served their intended purpose and contributed to achieving a high standard of education. Additionally, additional elaboration and interpretation were considered in relation to the perceived limits of e-learning platforms in terms of learning management and assessment management.

This study examined the perceived limitations on the use of e-learning platforms in the new normal academic set-up among university students of Cebu Technological University - Argao Campus with the following purposes:

- to determine the perceived limitations encountered by the respondents in using e-learning platforms; and
- to assess significant differences in the perceived limitations encountered by the respondents in using e-learning platforms in terms of learning management system and assessment management system.

2. METHODS

The descriptive survey method was used to collect and analyze the data in this study. This technique described the perceived constraints of e-learning platforms in a new regular academic setting among university students at Cebu Technological University - Argao Campus during the first semester of the academic year 2020-2021. The researchers used a modified questionnaire to collect data and information in order to formulate additional instructional recommendations.

This study was conducted at Cebu Technological University- Argao Campus, Cebu Philippines. It is the only university in the municipality of Argao, a first-class municipality in the southeastern part of Cebu around 67km away from Cebu City. The study's respondents were picked using the Simple Stratified Sampling Technique, which split the population of students enrolled in the BEEd program at Cebu Technological University - Argao Campus into subgroups based on their year level and section. The researchers selected ten representative samples from each area using random sampling.

The researchers utilized an adapted questionnaire from McGreal & Elliot(2004), Kapalana (2010) Abasa et.al (2013), Shaharanee et.al (2016), with the internet self-efficacy scale that was developed by Eastin & LaRose as reference. This was administered through a Google Form. This served as the main tool for gathering data to answer the research questions.

The research questionnaire used a four-point Likert Scale (4- Strongly Agree (SA), 3- Agree (A), 2- Disagree (D), and 1- Strongly Disagree (SD). It contained the statements of the possible limitations of e-learning platforms in terms of the learning management system and assessment management system.

This research study used the weighted mean to identify the perceived limitations of e-Learning platforms in terms of learning management system and assessment platforms, and One Way Analysis of Variance to determine the significant difference in the perceived limitation of e-learning platforms in terms of learning management system and assessment management system.



Figure 1: Map Showing the Cebu Technological University – Argao Campus, Cebu Philippines (<https://www.google.com/search?q=map+of+cebu&sxsrf>).

3. RESULTS AND DISCUSSIONS

3.1 Perceived Limitations of E-Learning Platforms for Learning Management System

Table 4.1 presents the three most widely used e-learning platforms for the learning management system by university students, namely the Odilo, Edmodo and Google Classroom. Furthermore, the table presents the standard deviation, mean, verbal description, and interpretation of their responses.

Table 3.1: Learning Management System

Learning Management System	Items N=90											
	Odilo				Edmodo				Google Classroom			
	WM	S	Categorical Response	Description	WM	S	Categorical Response	Description	WM	S	Categorical Response	Description
1. Features on this E-learning platform is confusing.	2.86	0.65	Agree	MI	2.31	0.66	Disagree	SI	1.60	0.56	Strongly Disagree	NI
2. This E-learning platform is not user friendly.	2.68	0.76	Agree	MII	2.17	0.67	Disagree	SI	1.66	0.66	Strongly Disagree	NI
3. Features on this E-learning platform fails to impart us the skills needed to learn.	2.42	0.77	Disagree	SI	2.03	0.59	Disagree	SI	1.78	0.65	Disagree	SI
4. Features on this E-learning platform cannot control plagiarism.	2.46	0.69	Disagree	SI	2.26	0.7	Disagree	SI	2.19	0.69	Disagree	SI
5. Features on this E-learning platform is too time consuming to use in teaching and learning.	2.78	0.80	Agree	MII	2.19	0.73	Disagree	SI	1.68	0.56	Strongly Disagree	NI
6. Features on this E-learning platform has no auto-update features which leads the learners to miss important announcement because they should refresh it regularly.	2.69	0.66	Agree	MII	2.09	0.61	Disagree	SI	1.78	0.70	Disagree	SI

7. Finding necessary information is difficult when using this E-learning platform.	2.77	0.65	Agree	MI	2.23	0.69	Disagree	SI	1.63	0.53	Strongly Disagree	NI
8. Doing collaborative work using this E-learning platform is ineffective.	2.61	0.70	Agree	MI	2.13	0.62	Disagree	SI	1.82	0.63	Disagree	SI
9. I had a hard time organizing my work using this E-learning platform.	2.91	0.68	Agree	MI	2.24	0.77	Disagree	SI	1.68	0.54	Strongly Disagree	NI
10. I am not familiar with the platform.	2.81	0.85	Agree	MI	2.09	0.74	Disagree	SI	1.59	0.63	Strongly Disagree	NI
11. I had a hard time catching up my missed lectures on this E-learning platform.	2.70	0.77	Agree	MI	2.12	0.67	Disagree	SI	1.68	0.58	Strongly Disagree	NI
12. It is hard to contact my teachers with regards on some queries about a lesson/ task using this E-learning platform.	2.69	0.76	Agree	MI	2.40	0.73	Disagree	SI	1.90	0.74	Disagree	SI
13. Browsing the course materials using this E-learning platform is difficult.	2.79	0.68	Agree	MI	2.11	0.64	Disagree	SI	1.63	0.57	Strongly Disagree	NI
14. There is a difficulty accessing this E-learning platform anytime and anywhere in electronic devices especially when experiencing poor internet connection.	3.27	0.79	Strongly Agree	LI	2.79	0.94	Agree	MI	2.23	0.89	Disagree	SI
15. Interactive communication is not possible on this E-learning platform.	2.67	0.69	Agree	MI	2.33	0.75	Disagree	SI	2.09	0.91	Disagree	SI
TOTALITY ITEMS N=90	2.47	0.73	Agree	MI	2.23	0.70	Disagree	SI	1.80	0.66	Disagree	SI
Weighted Mean Interval		Categorical Response					Interpretation					
3.25-4.00		Strongly Agree					Large Impact					
2.50-3.24		Agree					Moderate Impact					
1.75-2.49		Disagree					Small Impact					
1.00-1.74		Strongly Disagree					No Impact					

Table 3.1 compares the three e-learning platforms that respondents utilized as their learning management system. With a grand standard deviation of 0.73 for Odilo, 0.70 for Edmodo, and 0.66 for Google Classroom, each platform has a distinct grand standard deviation. Each of these large standard deviations has a meaning of Disagree. This essentially means that the respondents' responses are homogeneous; as a result, their responses are more dependable and closer to the mean.

To further on each of the e-learning platform results, for Odilo, the statement with the lowest standard deviation of 0.65 is statement 1 while statement 10 has the greatest standard deviation of 0.85. With regards to the weighted mean, statement 14 has the highest weighted mean of 3.47 and a categorical response of Strongly Agree. It states, "There is a difficulty assessing this E-Learning platform anytime and anywhere on electronic devices, particularly when experiencing poor internet connection." And the statement with the lowest weighted mean of 2.42 and a categorical response of Agree is

statement 3, which states, "This Elearning platform fails to instill us with the necessary learning skills." In aggregate, students' responses regarding perceived limitations of e-learning platforms for learning management, specifically for Odilo, average 2.47 with a categorical response of Agree.

This indicates that the students agree that Odilo is difficult to access and that it is tough to access it at any time and from any electronic device, particularly when the internet connection is bad. Thus, the aggregation and collection of data indicates that Odilo as a learning management system is inconvenient for students who cannot afford to offer their own learning equipment, particularly in terms of ensuring an internet connection, which is required for online classes. When facilities are not readily available, a hazard exists because pupils will be discouraged from engaging in e-activities (Ramayah et. al., 2010). Rather than developing into a helping tool, the absence of critical capabilities will obstruct the teaching-learning process.

Additionally, as Evans et al. (2004) explain, sole reliance on specific e-learning platforms may not result in successful learning results. Each of the tools offered to the educational sector has a unique set of characteristics, some more so than others. Not all cater to the educational institutions' requirements equally effectively. As with other LMSs, Odilo has limitations, most notably in terms of the lack of face-to-face interaction, hardware and bandwidth accessibility, and the possibility of distractions disrupting learners' online learning experience. O'Neill et al. (2001).

For Edmodo, on the other hand, the statement with the lowest standard deviation of 0.65 and a categorical response of Disagree is statement 6 "Features on this E-learning platform do not auto-update, which causes learners to miss significant announcements because they must refresh it constantly." While statement 14 "There is a difficulty accessing this E-learning platform anytime and anywhere in electronic devices, particularly when experiencing poor internet connection" has the highest standard deviation of 0.94 and a categorical response of Disagree, the statement with the highest standard deviation of 0.94 and a categorical response of Disagree is statement 14.

In terms of weighted mean, the statement with the highest weighted mean of 2.79 and a categorical response of Agree is statement 14, which states, "There is a difficulty accessing this e-learning platform at any time and from any electronic device, particularly when experiencing poor internet connection." And the statement with the lowest weighted mean of 2.03 and the categorical response of Disagree is statement 3 "This e-learning platform does not instill us with the necessary learning skills." The students' reaction to the perceived limitation of an e-learning platform for learning management, more notably Edmodo, is 2.23 with a categorical response of Disagree. This indicates that respondents concur that this e-learning platform is difficult to use at any time and from any location via electronic devices, given the difficulty of securing internet connectivity in some geographical places. This constraint, however, is not the sole reason for the e-learning platform to be considered inefficient for learners, as respondents disagree when they state that the e-learning platform fails to transmit the necessary abilities for learning. This means that Edmodo is a rather efficient instrument for student learning with few cumulative restrictions.

According to the findings, an external factor involving learners' preferences has an effect on the implementation of Edmodo through an indirect effect on Edmodo's provision of facilities for teaching and learning. Students will have difficulty accessing e-activities if hardware and bandwidth are not readily available (Ramayah, Ahmad & Lo, 2010). The prevalent misperception regarding Generation Y and Z is that they are well-equipped with at least a smart phone, a

personal computer, or a home computer (Manohan, 2014). That may not be the case for pupils who live in metropolitan regions and come from high- or middle-income households. The alternative possibility for rural pupils is that they may not be fortunate enough to own such equipment (Soltan, 2016). Additionally, according to Volme (2018), acquiring an internet connection is a serious issue for low-income families and those who live in remote places.

This is also reinforced by Lloyd Gessard's (1984) study, which asserts that a lack of technical skills and knowledge would frequently result in and serve as a barrier to utilizing e-learning platforms. Additionally, the report indicates that the e-learning platforms themselves are perplexing because they may be unfamiliar to students and require additional changes. However, based on the results acquired, respondents believe that Edmodo fails to impart necessary skills, refuting earlier research that indicate it is confusing to manage and increases their overall burden. These kinds of constraints imposed by the environment and external circumstances, as stated by participants, clearly create disadvantages for Edmodo implementation, even though these constraints are not inherent in Edmodo, as Rodriguez et al. discovered (2005). As previously said, e-learning via Edmodo has limits, and if those problems persist, it will be impossible to adopt Edmodo in educational institutions.

Finally, for Google Classroom, the statement with the lowest standard deviation of 0.53 and a categorical response of Strongly Disagree is statement 7 "Finding necessary information is difficult when using this e-learning platform," while statement 15 "Interactive communication is not possible" has the highest standard deviation of 0.91 and a categorical response of Disagree.

In terms of weighted mean, the statement with the highest weighted mean of 2.23 and a categorical response of Disagree is statement 14, which states, "There is a difficulty accessing this E-Learning platform at any time and from any electronic device, particularly when experiencing a poor internet connection." And statement 10 "I am unfamiliar with the platform" gets the lowest weighted mean of 1.59 with a categorical response of Strongly Disagree. In aggregate, students' responses regarding perceived limitations of e-learning platforms for learning management, more especially Google Classroom, average 1.80 with a categorical response of Disagree.

As a result, Google Classroom is an effective tool for student learning. According to the findings, the majority of respondents disagree with the perceived constraints stated in each statement. Additionally, the data indicate that respondents have not encountered difficulties accessing any of the three e-learning platforms due to inadequate internet connectivity. They disagree with the notion that it is difficult to access this e-learning platform at any time and from any location via electronic devices, particularly when connected to a slow internet connection. Additionally, respondents are adamant that they are unfamiliar with the e-learning platform. As a result, Google Classroom is an effective tool for student learning.

3.2 Perceived Limitations of E-Learning Platforms for Assessment Management System

Table 3.2 presents the three most widely used e-learning platforms for the assessment management system by the university students namely the Quizizz, Kahoot and Google Forms. This table shows the grand standard deviation, mean, categorical response and interpretation of their responses.

Table 3.2: Assessment Management System

Items N=90												
Assessment System	Quizizz				Kahoot				Google Forms			
	WM	SD	Categorical Response	Description	WM	SD	Categorical Response	Description	WM	SD	Categorical Response	Description
1. This e-learning platform is not user friendly.	2.13	0.67	Disagree	SI	2.21	0.79	Disagree	SI	1.73	0.56	Strongly Disagree	NI
2. This e-learning platform is not convenient to use especially when submitting assignments or project-based tasks.	2.48	0.75	Disagree	SI	2.48	0.77	Disagree	SI	1.77	0.60	Disagree	SI
3. This e-learning platform is time consuming when used.	2.11	0.64	Disagree	SI	2.41	0.75	Disagree	SI	1.76	0.59	Disagree	SI
4. This e-learning platform cannot generate feedback on time.	2.09	0.71	Disagree	SI	2.43	0.74	Disagree	SI	2.00	0.75	Disagree	SI
5. This e-learning platform is difficult to access and navigate.	2.17	0.69	Disagree	SI	2.44	0.81	Disagree	SI	1.71	0.59	Strongly Disagree	NI
6. Attaching files is difficult and quite confusing.	2.51	0.78	Agree	MI	2.61	0.79	Agree	MI	1.87	0.67	Disagree	SI
7. There is greater tendency of cheating to occur using this e-learning platform.	2.00	0.72	Disagree	SI	2.42	0.82	Disagree	SI	2.49	0.85	Disagree	SI
8. Assessing student's understanding about certain lesson is ineffective using this e-learning platform.	2.02	0.69	Disagree	SI	2.29	0.77	Disagree	SI	1.99	0.69	Disagree	SI
9. Tests cannot be completed immediately.	2.07	0.76	Disagree	SI	2.26	0.74	Disagree	SI	1.96	0.67	Disagree	SI
10. The grading system in this e-learning platform did not help the learners in monitoring their performance and understanding the current topic discussed.	1.99	0.71	Disagree	SI	2.28	0.73	Disagree	SI	1.90	0.60	Disagree	SI
TOTALITY ITEMS N=90	2.15	0.71	Disagree	SI	2.38	0.85	Disagree	SI	1.92	0.66	Disagree	SI
Weighted Mean Interval	Categorical Response								Interpretation			
3.25-4.00	Strongly Agree								Large Impact			
2.50-3.24	Agree								Moderate Impact			
1.75-2.49	Disagree								Small Impact			
1.00-1.74	Strongly Disagree								No Impact			

Table 3.2 compares the three e-learning platforms in terms of Assessment Management System, revealing that each platform has a unique grand standard deviation of 0.71 for Quizizz, 0.85 for Kahoot, and 0.66 for Google forms. Each of these large standard deviations has a meaning of Disagree. This essentially means that the respondents' responses are homogeneous; as a result, their responses are more reliable and closer to the mean.

To examine the results of each assessment management system platform in greater detail, for Quizizz, the statement with the lowest standard deviation of 0.64 and a categorical response of Disagree is statement 3, which states, "This e-learning platform is time consuming when used." While statement 6 with a categorical response of Agree has the highest standard deviation of 0.78, it states, "Attaching files is difficult and quite confusing." With regard to its weighted mean, statement 6 has the highest weighted mean of 2.51 and a categorical response of Agree. While statement 10 "The grading system in this e-learning platform did not assist learners in monitoring their performance and comprehending the current topic discussed" has the lowest weighted mean of 1.99 and the categorical response of Disagree, statement 10 "The grading system in this e-learning platform did not assist learners in monitoring their performance and comprehending the current topic discussed." In aggregate, students' responses to the perceived limitation of an e-learning platform for assessment management systems, specifically Quizizz, average 2.15 with a categorical response of Disagree.

This indicates that respondents concur that it is challenging to attach files to Quizizz. However, respondents disagree when they state that the grading system used in this e-learning platform did not assist learners in monitoring their

performance and comprehension of the current topic discussed. As a result of this accumulation and collection of data, it is concluded that Quizizz, as an assessment management system's e-learning platform, is efficient while posing few limitations.

This confirms Desai et al. (2008)'s assertion that the system's quality of support services may fall short of meeting the needs of its users as a result of this limitation. A factor that contributes to this limitation is also discussed in Liaw et al. (2017)'s study, which states that adequate training and knowledge about how to use the platform must be established. The study goes on to explain that because certain platforms have unique features and designs, users may become confused about how to manage and utilize them. As a result, the study suggests that for effective use of a particular e-learning platform, educators and instructors must introduce the platform and be able to thoroughly explain how it will be used, as well as familiarize students with its features, commands, and usage.

Despite these constraints, respondents disagree on the perceived constraint that the grading system in this e-learning platform did not aid learners in monitoring their performance and comprehending the current topic discussed. As a result, Quizizz can continue to assist students in terms of educational attainment and progress. Quizizz, as a specialized e-learning platform, has developed beneficial features that both teachers and students enjoy while learning.

Indeed, according to the creators of this e-learning platform, Quizizz employs the same educational technique as Kahoot, but with minor differences. Kahoot is only used in the classroom for real-time formative assessment, testing, questionnaires, and discussions. Quizizz distinguishes between two distinct application modes. One is to conduct a formative evaluation in real time in the classroom, and the other is to assign an extracurricular assignment to the student by the teacher. According to one of the benefits cited in the Beldon et al. (2012) study, Quizizz is an example of a gamification technique. Educators frequently use Quizizz in class to create ad hoc test, which increases student engagement.

Their study discusses how gamification techniques can help students become more motivated and engaged in the classroom. The study's conclusion is that students who use Quizizz throughout the semester are more engaged and motivated than those who do not. Their study concluded that educational technology, such as Quizizz, is an effective way to keep students motivated, as it enables students to increase their interest in learning and earn higher grades.

For Kahoot, the statement with the lowest standard deviation of 0.73 and a categorical response of Disagree is statement 10, which states that "The grading system in this e-learning platform did not assist learners in monitoring their performance or comprehending the current topic discussed." While statement 7 "There is a greater likelihood of cheating to occur when using this e-learning platform" has the highest standard deviation of 0.82 and a categorical response of Disagree, statement 7 "There is a greater likelihood of cheating to occur when using this e-learning platform." With regard to its weighted mean, statement 6 has the highest weighted mean of 2.61 and a categorical response of Agree. And statement 1, which states that "This e-learning platform is not user-friendly," has the lowest weighted mean of 2.21 and a categorical response of Disagree. In aggregate, students' responses to perceived limitations of e-learning platforms for assessment management systems, specifically Kahoot, result in a grand mean of 2.38 and a categorical response of Disagree.

As a result of this accumulation and gathering of data, it has been determined that Kahoot as an assessment management system is difficult to use, particularly when attaching files, and quite confusing. However, this does not mean

that this e-learning platform is not user-friendly. This means that the e-learning platform, specifically Kahoot, remains an effective assessment tool with few limitations.

Thus, Kentukki (2012) supports this claim by stating that e-learning platforms must be carefully and distinctively designed in order to meet the needs of their users. According to Petter et al. (2008), this concept will result in a strong positive correlation between user satisfaction and net benefits. According to their analysis, if an e-learning system meets the knowledge dissemination needs of users satisfactorily, the system's impact on users will improve, resulting in performance success.

Finally, for the Google Forms, the statement with the lowest standard deviation of 0.56 and a categorical response of Strongly Disagree is statement 1: "This e-learning platform is not user-friendly." While statement 7 "There is a greater likelihood of cheating when using this e-learning platform" has the highest standard deviation of 0.85 and a categorical response of Disagree, statement 7 "There is a greater likelihood of cheating when using this e-learning platform." With regards to its weighted mean, statement 7 has the highest weighted mean of 2.49 and a categorical response of Disagree. The statement with the lowest weighted mean of 1.71 and a categorical response of Strongly Disagree is 5: "This e-learning platform is difficult to access and navigate." In aggregate, students' responses to perceived limitations of e-learning platforms for assessment management systems, specifically Google Forms, result in a grand mean of 1.92 and a categorical response of Disagree.

This indicates that respondents disagree with the assertion that this learning platform is prone to and more prone to cheating, and that it is not difficult to access and navigate. This also implies that this e-learning platform, more precisely Google Form, is effective as an assessment tool. According to the findings, respondents disagree with statements about the product's possible perceived limitations.

Additionally, Desai, Hart, and Richard (2008) argue that "the vast amount of information that computers provide on a daily basis has enabled teachers and students to explore education in ways that were previously impossible with traditional instructional tools." As stated previously, using Google Forms as an evaluation platform enables a variety of functionalities that cater to the learners' needs. Students were permitted to explore the aforementioned platform under the supervision of professors. They also gained an understanding of its capabilities and limitations, which resulted in respondents stating that this e-learning platform is extremely easy to access and navigate. Additionally, according to Loyd Gessard's 1984 study, a lack of technical skills and knowledge will typically result in and act as a barrier to utilizing e-learning platforms.

3.3 Significant Difference in the Perceived Limitations Encountered by the Respondents in using E-Learning Platforms - Learning Management System

Table 3.3 presents whether there is a significant difference in the perceived limitations encountered by the respondents in using the e-learning platforms in the learning management system as to Odilo, Edmodo, and Google Classroom

Table 3.3 Significant Difference in the Perceived Limitations Encountered by the Respondents in Using e-Learning Platforms as to Learning Management System

Anova: Single Factor Summary							
Groups	Count	Sum	Average	Variance			
Odilo	90	246.5286	2.739206	0.238546			
Edmodo	90	201	2.233333	0.232834			
Google Classroom	90	161.6	1.795556	0.179556			
ANOVA							
Source of Variation	SS	df		MS	F	P-value	F crit
Between Groups	40.14		2	20.071	92.5	3.01E-31	3.03
Within Groups	57.93		267	0.217			
Total	98.07		269				

Table 4.3 demonstrates whether there is a significant difference in respondents' perceived limitations when using e-learning platforms, specifically learning management systems, such as Odilo, Edmodo, and Google Classroom.

It was hypothesized that there is no significant difference in respondents' perceptions of the limitations associated with using Odilo, Edmodo, and Google Classroom as learning management systems. The results of the computation of the data required to conduct the comparison of the three (3) learning management systems are shown in Table 4.3.

In terms of perceived limitations associated with the use of various e-learning platforms, the computed F-value of 92.5 is greater than the critical F-value of 3.03, while the p value of 3.01E-31 is less than alpha (α) at the 0.05 level of significance, indicating that the null hypothesis should be rejected. There is a significant difference in the weighted means (in terms of perceived constraints associated with using e-learning platforms) between the three classifications of learning management system used by respondents. When an analysis of variance (ANOVA) produces a statistically significant result, it indicates that at least one group or variable is significantly different from the others. The data are then subjected to the F-test in order to analyze the pattern of difference between means.

According to the Fisher Pairwise Comparison Test, if the means of the treatments do not share a letter, they are significantly different. As indicated in the table, the three classifications Odilo, Edmodo, and Google Classroom do not all share the same letter. The means differ significantly. This indicates that respondents' perceptions of the limitations associated with using Odilo, Edmodo, and Google Classroom vary. This demonstrates that Google Classroom, with a mean of 1.80, has fewer perceived limitations than Edmodo (2.23) and Odilo (2.74). On the other hand, Odilo, which has the highest mean, is perceived to have more limitations than Edmodo and Google Classroom.

Thus, the findings indicate that the perceived limitations associated with the aforementioned e-learning platforms in terms of learning management systems vary significantly. This finding supports Attewell's (2005) assertion that it is currently impossible for designers of e-learning materials to create a generic version for all platforms. If all e-learning platforms are designed similarly, there is a greater chance that they will share the same limitations and have little in common. According to Kentukki (2012), e-learning platforms must be carefully designed and differentiated from one another in order to meet the needs of their users. Additionally, Google Classroom's low mean indicates that users perceive it to have fewer limitations than other e-learning platforms used as a learning management system. This indicates that Google Classroom is more user-friendly than the respondents' other learning management system-based e-learning platforms. According to Lwoga and Komba (2015), user friendliness has an effect on the usability of e-learning platforms.

As a result, the more restrictions imposed, the less likely users will be satisfied with the e-learning platform. Meanwhile, Odilo, with the highest mean, presents more constraints based on respondent responses. This means that its shortcomings have a significant impact on user satisfaction and net benefits.

Both dimensions, user satisfaction and net benefits, are included in DeLone and McLean's (2003) IS Success model of theory, implying that these dimensions will have an effect on the future use of the e-learning platform, either positively or negatively.

3.4 Significant Difference in the Perceived Limitations Encountered by the Respondents in using E-Learning Platforms – Assessment Management System

Table 3.4 presents whether there is a significant difference in the perceived limitations encountered by the respondents in using the e-learning platforms in the assessment management system as to Quizizz, Kahoot, and Google Form.

Table 3.4: Significant Difference in the Perceived Limitations Encountered by the Respondents in Using e-Learning Platforms as to Assessment Management System

Anova: Single Factor Summary							
Groups	Count	Sum	Average	Variance			
Quizziz	90	194.1	2.156667	0.237764			
Kahoot	90	214.5	2.383333	0.418034			
Google Forms	90	172.5	1.916667	0.216461			
ANOVA							
Source of Variation	SS	df		MS	F	P-value	F crit
Between Groups	9.802667		2	4.901333	16.85739	1.28E-07	3.029597
Within Groups	77.631		267	0.290753			
Total	87.43367		269				

Table 3.4 demonstrates whether there is a significant difference in respondents' perceived limitations when using e-learning platforms, specifically the assessment management system, compared to Quizizz, Kahoot, and Google Forms.

It was hypothesized that there is no significant difference in respondents' perceived limitations when using Quizizz, Kahoot, or Google Form in terms of assessment management system. The results of the computation of the data necessary to conduct a comparison of the three (3) assessment management systems are shown in Table 4.4.

In terms of perceived limitations associated with the use of various e-learning platforms, the computed F-value of 16.86 is greater than the critical F-value of 3.03, while the p value of 1.28E-07 is less than alpha (α) at the 0.05 level of significance, indicating that the null hypothesis should be rejected. There is a significant difference in the weighted means (in terms of perceived limitations in using e-learning platforms) between the three assessment management system classifications used by respondents. When an analysis of variance (ANOVA) produces a statistically significant result, it indicates that at least one group or variable is significantly different from the others. The data are then subjected to the F-test in order to analyze the pattern of difference between means.

According to the Fisher Pairwise Comparison Test, if the means of the treatments do not share a letter, they are significantly different. As indicated in the table, the three classifications Quizizz, Kahoot, and Google Forms do not all begin with the same letter. The means differ significantly. This indicates that respondents' perceptions of the limitations

associated with using Quizizz, Kahoot, and Google Forms vary. This demonstrates that Google Form, with its lowest mean (1.92), has fewer perceived limitations than Quizizz (2.16), and Kahoot (1.92). (2.38). On the other hand, Kahoot, which has the highest mean, is perceived to have more limitations than Google Form and Quizizz.

Thus, the results gathered and accumulated are consistent with Attewell's (2005) study and the statement of programmer Jonathan Smith, who asserts that no generic version of any e-learning platform has been produced and that programmers should continue to work on adapting the designs to the needs of their users. Similarly, when e-learning platforms are used in conjunction with a learning management system, there is a significant difference in the weighted means for perceived limitations associated with using e-learning platforms. As a result, perceptions of the limitations of these assessment management systems' e-learning platforms vary. As a result, these e-learning platforms are all designed differently and uniquely. Singh (2003) asserts that a single mode of instruction or feature of a system may be insufficient to provide the variety, engagement, social contact, relevance, and context necessary for successful learning and performance.

The distinction between systems and platforms has an effect on user satisfaction, as proponents of the DeLone and McLean information systems model from 2003 elaborate. This demonstrates that the respondents' e-learning platforms are designed uniquely, and that respondents are exposed to the various features available on each platform. Thus, in contrast to Wang's (2011) study, e-learning systems do not support two-way communication or instruction. Additionally, as a result of the findings, all e-learning platforms have inherent limitations. According to Graham and Misanchuk (2004), despite students' recognition of the benefits of technology-assisted learning, a problem arises due to the software's technical capability, particularly in terms of functionality. This also supports Tsai's (2009) study, which states that students enrolled in online courses may encounter difficulties they have never encountered in a traditional teaching and learning environment, such as when using e-learning platforms to assess student performance. Additionally, because Google Form has the lowest mean and respondents perceive fewer limitations, it is more convenient to use and more user-friendly than other e-learning platforms for assessment management systems.

This idea supports Borja (2016)'s finding that Google Forms, along with Google Classroom, has gained widespread acceptance among users due to its efficiency in handling tasks. Thus, resulting in fewer complications and a more fluid flow of organizing critical tasks in the long run. Meanwhile, Kahoot's highest mean indicates that the platform has the most limitations in comparison to other e-learning platforms. As a result, the limitations acquired significantly impact its usability and future use. This concept is implicit in DeLone and McLean's (2003) IS Success model of theory, which states unequivocally that in order for a program or any system to be acquired and widely accepted, user satisfaction and net benefits must be guaranteed. The study's findings indicate that respondents encountered greater limitations when using Kahoot, which has a significant impact on the e-learning platform's future use.

4. CONCLUSIONS

Based on the findings of the study, the commonly perceived limitations encountered by the respondents are the difficulty of accessing the e-learning platform anytime and anywhere in electronic devices especially when experiencing poor internet connection for learning management system and attaching files are difficult and quite confusing for assessment management system. These limitations agree to the dimensions stated in DeLone and McLean IS theory, 2003 particularly on service and system quality that adheres to the features and familiarity of the e-learning platforms used. Thus, affecting the success of the learning theories for online education namely the Community of Inquiry Theory (COI), Connectivism Theory and Online Collaborative Learning Theory.

Moreover, based on the results gathered, it was found out that there is a significant difference in the respondents' perceived limitations in using the e-learning platforms in terms of learning management system and in terms of assessment management system.

5. ACKNOWLEDGEMENT

As this research was conducted, the team are grateful to have them throughout the study. A sincerest thanks and appreciation goes to them.

Moreover, the team would like to express its deepest and sincere gratitude to the Cebu Technological University, Argao, Campus, Cebu Philippines and fellow faculty members and the student-respondents for extending their hands and sharing their ideas that have deeply helped the team to improve this study.

Lastly, we are forever grateful to our Almighty Father for the daily guidance and strength. for giving the blessing of strength and the courage to overcome every problem, struggle and hindrance encountered.

REFERENCES

1. Abdullah S. Alqahtani (2019). *The Use of Edmodo: Its Impact on Learning and acceptance of e-learning in South Korea: Theories and results from Alex Koohang, Liz Riley, Terry Snith & Jeanne Schereus (2009, January). ELearning and Constructivism: From Theory to Application from <https://www.researchgate.net/publication/320656550>*
2. Alia Mokhtar (2016). *Recognizing Possible Limitations of E-Learning Through EDMODO from. <https://www.researchgate.net/publication/317074633>*
3. Alia Mokhtar (October, 2016). *Recognizing Possible Limitations of E-Learning*
4. Anchalee Ngampornchai & Jonathan Adams (2016). *Students' acceptance and behavioral intention to use e-learning in Azerbaijan? The General Bekki Brau (2020). Constructivism. In R. Kimmons & scaskurlu (Eds.), The Students' Guide to Learning Design and Research. EdTech Books from <https://edtechbooks.org/studentguide/constructivism>*
5. Dela Pena-Bandalaria (2009). *ICT (information and communications technology, or technologies). Retrieved from techtarget.com: <https://searchcio.techtarget.com/definition/ICTinformationand.com>*
6. Didem inel-Ekici (2017). *The Use of Edmodo in Creating an Online Learning Community of Practice for Learning to Teach Science from <https://www.semanticscholar.org/paper>*
7. *Extended Technology Acceptance Model for E-learning approach Fernando Antonio de Melo Pereira & Marconi Freitas de Costa (May, 2015). From Hsiao-Hui Wang, Eunice & Chen, Chao-Yu (2011). System quality, user <https://educationaltechnologyjournal.springeropen.com/articles/10.1> <https://www.informingscience.org/Publications/4389?Source=%2FJ> <https://www.researchgate.net/publication/265965216> https://www.researchgate.net/publication/312224440_Intention_to_ https://www.researchgate.net/publication/317074633_Recognizing_ <https://www.sciencedirect.com/science/article/abs/pii/S0360131509> <https://www.sciencedirect.com/science/article/abs/pii/S0360131517> <https://www.sciencedirect.com/science/article/abs/pii/S0747563215>*
8. Kelly Walsh (2015, April 20). *8 Examples of Transforming Lessons Through the SAMR Cycle from <https://www.emergingedtech.com/2015/04/examples-oftransforming-lessons-through-samr/> kKvTVersqKCEXF Learning_for_Training_in_the_Corporate_Context*

9. Lee (2009). *Learners' acceptance of E-Learning in South Korea* from Maria Pietronilla Penna & Vera Stara (January, 2007). *The failure of e-learning*: Mateer, G. D., Ghent, L. S., Porter, T., & Purdom, R. (2018, May 7). *Using Media to Enhance Teaching and Learning*. Diambil kembali dari *Pedagogy in Action the SERC Portal for Educators*. Retrieved from <https://serc.carleton.edu/sp/library/media/index.html>
10. Maxine Esterhuysen, Brenda Scholtz, Danie Venter (November, 2016). *Intention McClain & Brown, (2013). Why Use Media to Enhance Teaching and Learning*. Diambil kembali dari *Pedagogy in Action the SERC Portal for Educators*. Retrieved from <https://serc.carleton.edu/sp/library/media/why.html>
11. Mukhtar, K., et.al (2020). *Advantages, Limitations and Recommendations for online learning during COVID-19 pandemic era*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7306967/?fbclid=I>
12. Nicholas kipkurui Kiget, Gregory Wabuke Wanyembi, Anselemo Ikoha Peters Nur Alim, Wa Linda, Fahmi Gunawan Alimin & Mohd Shamsuri Md Saad (2019, March). *The Effectiveness of Google Classroom as an Instructional media a case of state islamic Institute of Kendari, Indonesia* from: <https://www.researchgate.net/publication/33391630urnals%2FJITERsearch%2FArticles%3FVolume%3D0-0> Possible_Limitations_of_E-Learning_Through_EDMODO
13. Prinsloo & van Rooyen (2007). *Google Classroom*. Retrieved April 25, 2017, from Webopedia: <http://www.webopedia.com/TERM/G/googleclassroom.html>
14. *readiness for E-learning in Northeastern Thailand* from
15. Rossytawati, R. (2018). *A Survey Study of Students' Perception in Using Google Classroom in English Language Education Department of Islamic University of Indonesia*. Pendidikan Bahasa Inggris. Fakultas Psikologi dan Ilmu Sosial Budaya. Universitas Islam Indonesia
16. *Satisfaction and continuous use intention of e-learning service in satisfaction, and perceived net benefits of mobile broadband services* from <https://ideas.repec.org/p/zbw/itsp11/52334.html>
17. *Students' Attitudes Toward It from Through EDMODO from to Use and Satisfaction of e-Learning for Training in the Corporate Universities from Use_and_Satisfaction_of_e- why should we use a learner centred design* from <https://www.researchgate.net/publication/261523837>
18. Salim, Sherbin. "Exploring the Possibility of E-Learning in Teaching and Learning English as a Foreign Language in Government Higher Secondary Schools in Kerala." *International Journal of Educational Science and Research (IJESR)* 8 (2018): 65-72.
19. Naidu, Kanchana, and Kalpana Naidu. "A study on emergency E learning in the wake of COVID-19." *Dogo Rangsang Research Journal* 10.7 (2020): 46-52.
20. Fatma, Shaikh Farhat. "E-learning trends issues and challenges." *International Journal of Economics. Commerce and Research* 3.2 (2013): 1-10.
21. Ajayi, Olusola Olajide, and Olufunke Esther Ajayi. "E-Learning: A Key to Actualizing Sustainable Educational Development in Africa." *International Journal of Computer Science and Engineering (IJCSSE)* 3.2014 (2014): 109-116.

